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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,982	08/30/2001	Hiroshi Arakawa	16869P-031600US	1364

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EXAMINER

LAZARO, DAVID R

ART UNIT PAPER NUMBER

2155

DATE MAILED: 10/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b>	<b>Application No.</b> 09/943,982	<b>Applicant(s)</b> ARAKAWA ET AL.	
	<b>Examiner</b> David Lazaro	<b>Art Unit</b> 2155	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 30 September 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 4 months from the mailing date of the final rejection.  
 b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
 (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
 (b) ☐ They raise the issue of new matter (see NOTE below);  
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
 5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
 6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
 7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
 The status of the claim(s) is (or will be) as follows:  
 Claim(s) allowed: \_\_\_\_\_.  
 Claim(s) objected to: \_\_\_\_\_.  
 Claim(s) rejected: 1, 2, 6-8 and 17-25.  
 Claim(s) withdrawn from consideration: \_\_\_\_\_.


#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
 12. ☐ Note the attached Information Disclosure Statement(s) (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_  
 13. ☒ Other: See Continuation Sheet.

  
**SALEH NAJJAR**  
**SUPERVISORY PATENT EXAMINER**

  
 David Lazaro  
 October 17, 2005

**Continuation Sheet**

Continuation of 11.:

Applicants' argument A (page 8) - *"Since the figures show only one primary DASD and one second DASD, Beardsley et al. do not show or suggest "one group of the selected resources and selected routes as a first path" and "another group of the selected resources and selected routes as a second path" as recited in claim 1 and similarly in claims 17 and 22."*

Examiner's response to argument A (and similar related arguments concerning this particular claim limitation) - It seems that applicants interpret the limitations related to "one group" and "another group" as requiring that Beardsley teach a plurality of primary and secondary DASDs. However, the claims must be given their broadest reasonable interpretation (MPEP 2111). The applicants' interpretation is too narrow as there is nothing to indicate the requirement implied by their arguments.

The claim reads "selecting resources in a usable state from a plurality of resources necessary for backing up data". Clearly from the claim language alone, one can interpret that resources are those components considered "necessary for backing up data", but not necessarily a plurality of storage media at one location and/or another plurality of storage media at another location. The cited section of Beardsley, Col. 8 line 56 - Col. 9 line 53, describes such resources. These include primary and secondary processors, data movers, storage controllers, DASDs, and communication links. This section of Beardsley specifically states "multiple primary storage controllers" (Col. 9 line 14), "plurality of channels" (Col. 9 line 16), and more than one primary DASDs (Col. 9 lines 17-23). The secondary site also has similar resources (Col. 9 line 24-44).

The claim further reads "selecting switches in a usable state from a plurality of switches necessary for forming routes among the selected resources". It is noted that it is inherent in Beardsley that the above described selected resources provide switching for forming the necessary routes between themselves when performing a backup process, otherwise data operations could not be performed as indicated by Beardsley. Furthermore, Beardsley explicitly teaches the selection of switches from a plurality of switches necessary for forming routes among the selected resources. Col. 11, lines 8-42, describes a storage controller in more detail. As noted before, there may be a plurality of primary and secondary storage controllers. Each of these storage controllers contains four storage paths (Col. 11 lines 20-22). As described by Beardsley, "The storage path 401 is connected to an 8x2 switch 402 by an upper channel port 430 and to a plurality of DASDs by a lower device port 432." (Col. 11 lines 23-25). Based on this structure, it is clear there is a plurality of switches providing multiple routes between resources, including a plurality of DASDs.

Based on these teachings, a primary data operation will form a path which is one group of selected resources and switches. As described in Col. 13 line 54 - Col. 14 line 42), a secondary data operation, to be used in the case of failure at the primary site, will form a path which is another group of selected resources and switches. As such, the teachings of Beardsley are within the scope of the claim limitations, and applicants' arguments are not persuasive.

Furthermore, as described above, Beardsley describes a plurality of DASDs may be present at both the primary and secondary sites. Therefore, even according to the applicant's interpretation, Beardsley is within the scope of the claim limitations.

Applicants' argument B (Page 9)- *"This cited portion of Beardsley et al., however, relates to a process referred to as "device swap"...This operation merely results in a reversal of the roles played by the primary DASD and the secondary DASD...The operation, therefore, does not show or suggest the act of "changing from the first path to the second path if a problem is detected" of claim 1, or of the similarly recited elements of claims 17 or claim.22."*

Examiner's response to argument B - The claim reads *"detecting if a problem occurs in the first path based on a result of execution of one of the backup commands in the backup instruction command set; changing from the first path to the second path if a problem is detected; and continuing execution of the backup processing by using the second path and executing backup commands in the backup instruction command sets that have not yet been executed."* Col. 15, lines 33-44, describes that when a problem is detected with a primary operation (the first path as described in the response to Argument A above), a secondary data operation directly associated with the primary operation (the second path as described in the response to Argument A above) can essentially take over. Col. 17 lines 3-39 describes one example this and relates to Fig. 9. Step 910 of Fig. 9 shows a detection of a problem with the data operation which may result in the device swap operation (Step 960). The "device swap" operation occurs when a problem is detected and is interpreted by the examiner as a change from the

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first path to the second path as a result of the detected problem. Col. 17, line 54, to Col. 18, line 6, describes that the device swap operation causes a change from the primary path to the secondary path and further continues execution of the backup process including those commands that have not yet been executed. Specifically, after a device swap is performed Beardsley states, "The primary host processor 101 directly sends all **subsequent I/O operations and record updates targeted for the primary device to the secondary DASD** 107 through channel 109 and the secondary storage controller" (emphasis added - Col. 18 lines 2-6). As such, the teachings of Beardsley are within the scope of the claim limitations, and applicants' arguments are not persuasive.

Continuation of 13.:

Claims 1, 2, 6-8 and 17-25 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,304,980 by Beardsley et al., as presented in the final office action mailed 06/17/05.